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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,874	10/28/2003	Roberto Polakiewicz	CST-209	3986
7590 11/02/2007 Roberto Polakiewicz, Ph.D. Chief Scientific Officer			EXAMINER	
			EWOLDT, GERALD R	
CELL SIGNAL 3 Trask Lane	CELL SIGNALING TECHNOLOGY, INC. 3 Trask Lane Danvers, MA 01923		ART UNIT	PAPER NUMBER
Danvers, MA 0			1644	
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			11/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/694,874	POLAKIEWICZ ET AL.
Office Action Summary	Examiner	Art Unit
	G. R. Ewoldt, Ph.D.	1644
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D. Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period v. Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be to will apply and will expire SIX (6) MONTHS from the application to become ABANDON	DN. imely filed m the mailing date of this communication. IED (35 U.S.C. § 133).
Status		
Responsive to communication(s) filed on <u>22 M</u> This action is FINAL . 2b)⊠ This Since this application is in condition for alloware closed in accordance with the practice under E	action is non-final. nce except for formal matters, p	
Disposition of Claims		
4) Claim(s) 6-9,11-15 and 17-38 is/are pending in 4a) Of the above claim(s) 6-9 and 11-15 is/are 5) Claim(s) is/are allowed. 6) Claim(s) 17-38 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or	withdrawn from consideration.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomposed and applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine	epted or b) objected to by the drawing(s) be held in abeyance. So ion is required if the drawing(s) is o	ee 37 CFR 1.85(a). bjected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list	s have been received. s have been received in Applica rity documents have been receiv u (PCT Rule 17.2(a)).	tion No ved in this National Stage
Attachment(c)		
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 1 Paper No(s)/Mail Date	4) Interview Summar Paper No(s)/Mail D 5) Notice of Informal 6) Other:	Date

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DETAILED ACTION

- 1. Applicant's amendment and remarks, filed 5/22/07 and 8/24/07 are acknowledged. In view of the amendments all previous rejections and objections have been withdrawn.
- 2. Claims 6-9, and 11-15 stand withdrawn from further consideration by the Examiner, under 37 C.F.R. § 1.142(b) as being drawn to nonelected inventions.

New Claims 17-38 are being acted upon.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless - (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 17-33 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,593,678.

The '678 patent teaches a polyclonal antibody that would bind SEQ ID NOs:1-4 when phosphorylated but not when unphosphorylated (see particularly column 10, lines 62-65).

The reference clearly anticipates the claimed invention.

5. Claims 17-32 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,807,702.

The '702 patent teaches a monoclonal antibody that would bind SEQ ID NOs:1-4 when phosphorylated but not when unphosphorylated (see particularly column 13, lines 45-47).

The reference clearly anticipates the claimed invention.

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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7. Claims 36-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,593,678 or U.S. Patent No. 5,807,702, in view of U.S. Patent 4,208,479.

The '678 and '702 patents have been discussed previously.

The claimed invention differs from the prior art by the teaching of placing the antibodies in a kit.

The '479 patent teaches that kits allow for substantial convenience in performing assays (see column 22, in particular). Therefore, one of ordinary skill in the art at the time the invention was made would have been motivated to provide the claimed antibodies in a kit, since kits allow for substantial convenience in performing assays (column 22, in particular).

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, it is unlikely that the antibodies of the kit can be used to detect PKC theta activity in a biological sample as claimed without undue experimentation.

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The specification disclosure is insufficient to enable one skilled in the art to practice the invention as claimed without an undue amount of experimentation. Undue experimentation must be considered in light of factors including: the breadth of the claims, the nature of the invention, the state of the prior art, the level of one of ordinary skill in the art, the level of predictability of the art, the amount of direction provided by the inventor, the existence of working examples, and the quantity of experimentation needed to make or use the invention, see *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988).

In re Fisher, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970) states, "The amount of guidance or direction needed to enable the invention is inversely related to the amount of knowledge in the state of the art as well as the predictability in the art." "The "amount of guidance or direction" refers to that information in the application, as originally filed, that teaches exactly how to make or use the invention. The more that is known in the prior art about the nature of the invention, how to make, and how to use the invention, and the more predictable the art is, the less information needs to be explicitly stated in the specification. In contrast, if little is known in the prior art about the nature of the invention and the art is unpredictable, the specification would need more detail as to how to make and use the invention in order to be enabling" (MPEP The MPEP further states that physiological activity 2164.03). can be considered inherently unpredictable. With these teachings in mind, an enabling disclosure, commensurate in scope with the breadth of the claimed invention, is required.

A review of the claim shows that it encompasses a kit comprising any antibody that would bind a phosphorylated serine in any protein. Given the limited disclosure of the specification, it is unclear how the detection of any phosphoserine could be used to detect PKC theta activity.

Accordingly, in view of the quantity of experimentation necessary, the lack of sufficient guidance in the specification, the lack of sufficient working examples, i.e., the specification discloses no data demonstrating that the claimed antibodies could be use as claimed, the unpredictability of the art, and particularly the breadth of the claim, it would take undue trials and errors to practice the claimed invention.

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10. Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter written description rejection.

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The specification and the claims as originally filed do not provide support for the invention as now claimed, specifically, a kit comprising the antibody of Claim 25 or 29.

Applicant cites page 30 of the specification. A review of the cite reveals support only for kits comprising the antibodies of Claims 17 and 21.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 12. Claims 21-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, specifically, the claims recite serines at specific positions within IRS proteins without reciting specific SEQ ID NOS. Note that in Claims 17-20 Applicant has recited specific SEQ ID NOS:, thus the claims have not been found to be indefinite. Employing the language of Claims 17-20 would obviate the rejections.
- 13. No claim is allowed
- 14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Gerald Ewoldt whose telephone number is (571) 272-0843. The examiner can normally be reached Monday through Thursday from 7:30 am to 5:30 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841.

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15. Please Note: Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

G.R. Ewoldt, Ph.D.

Primary Examiner

Technology Center 1600